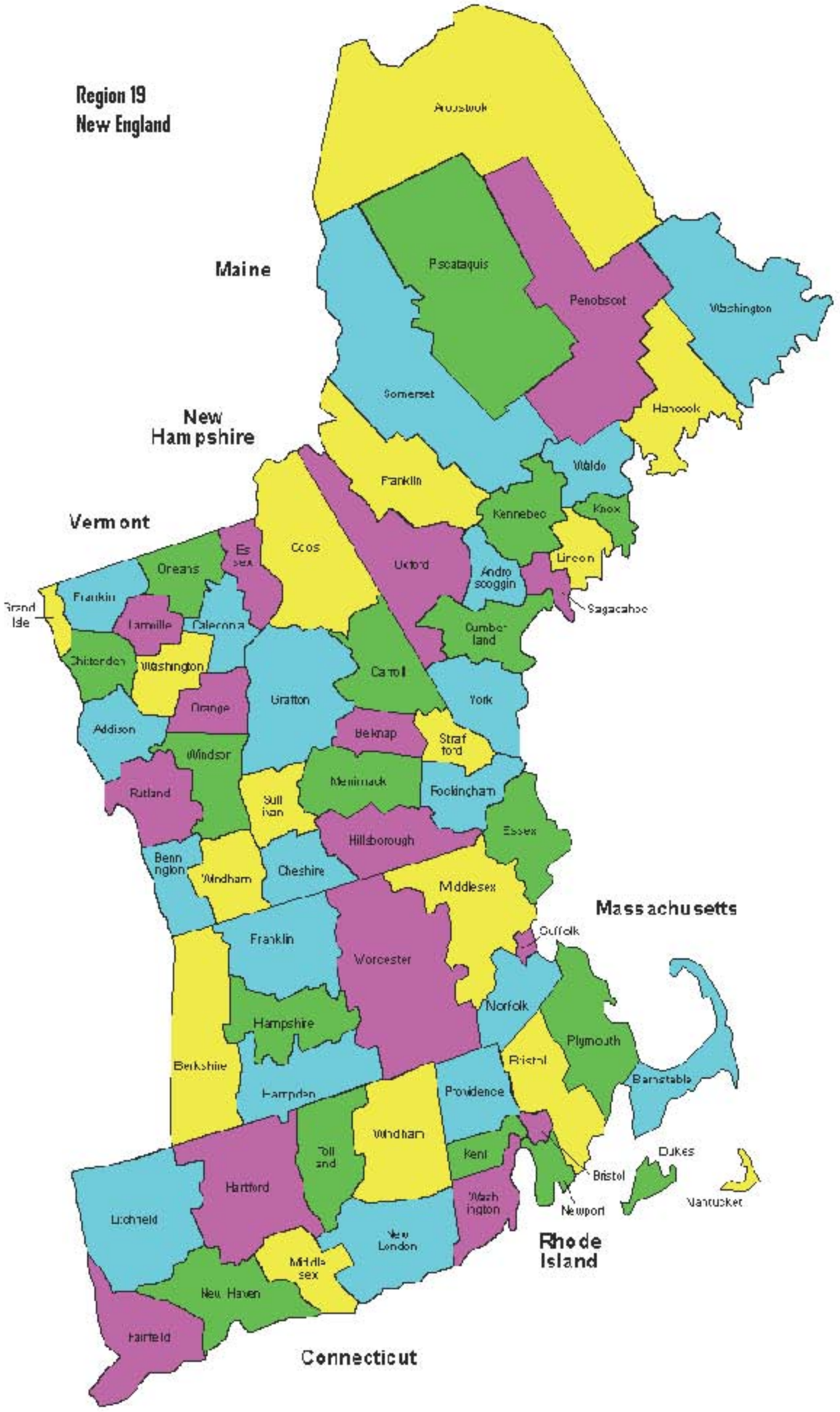
Region 19
New England
Maine
New Hampshire
Vermont
Massachusetts
Rhode Island
Connecticut
Aroostook
Piscataquis
Penobscot
Washington
Somerset
Hancock
Waldo
Franklin
Kennebec
Knox
Lincoln
Sagadahoc
Oxford
Androscoggin
Cumberland
York
Coos
Grafton
Carroll
Belknap
Strafford
Merrimack
Rockingham
Essex
Hillsborough
Cheshire
Sullivan
Middlesex
Worcester
Franklin
Hampshire
Berkshire
Hampden
Norfolk
Suffolk
Plymouth
Bristol
Barnstable
Providence
Kent
Windham
Dukes
Nantucket
Newport
Hartford
Litchfield
Tolland
Windham
Middlesex
New London
New Haven
Fairfield
Washington
Orleans
Essex
Caledonia
Chittenden
Washington
Orange
Addison
Windsor
Rutland
Bennington
Windham
Grand Isle
Franklin
Lamille

NEW ENGLAND REGION 19
DESCRIPTION AND MAP

New England Region 19 comprises six states: Maine, New Hampshire and Vermont to the north, Massachusetts, Connecticut and Rhode Island to the south. The three northern states border Canada. The western regional border is adjacent to New York state. The eastern and southern borders meet the Atlantic Ocean and Long Island Sound.

The region's topography is diverse. "The key topographic influence are the Appalachian mountains, which run north from western Connecticut and Massachusetts, into the Green Mountains of Vermont, and the White Mountains of New Hampshire, terminating in Maine. The trademark rocky coastline of Maine, sandy beaches and dunes of New Hampshire, Massachusetts, and Rhode Island, and Connecticut, offer the interface between the land mass of New England and the waters of the Atlantic Ocean and Long Island Sound. Bridging the gap between the ocean and mountains" are coastal plain and rolling hills.[1] The highest point is Mount Washington in New Hampshire which rises 6,288 feet above sea level. The lowest elevation is sea level for the states bordering the Atlantic Ocean and Long Island Sound. The region encompasses 62,810 square miles with a population of 13,562,517.[2] Population characteristics very considerably.

The northern states - Maine, New Hampshire, Vermont - are sparsely populated relative to the region as a whole. While these states comprise 78% of the geographical region (49,080 square miles), they account for 23% of the region's population (3, 119,536). The average population density for these three states combined is 64 persons per square mile. Within these states, the population density ranges from four persons per square mile (Piscataquis County, Maine) to 435 persons per square mile (Hillsborough County, New Hampshire). There is one city with a population of over 100,000, Manchester, New Hampshire (population 107,006).

The population of the region's southern states - Massachusetts, Connecticut and Rhode Island - reflect a more urban nature. This remaining geographic area comprises 22% of the geographic area (13,730 square miles) but 77% of the population (10,442,981) with an average density of 761 persons per square mile. However, within these states, there is a wide range in population density ranging from 102 persons per square mile (Franklin County, Massachusetts) to 11,788 persons per square mile (Suffolk County, Massachusetts). There are 11 cities with populations of over 100,000 in these states, the most populous being Boston, Massachusetts (population 589,141).

A complete listing of the region's states and counties is found in Appendix E.

Clearly, the geographic and demographic diversity within Region 19 presents both operational and structural challenges in the development and administration of the comprehensive management plan.

1. "The New England Weather Network: A Shared 21st Century Vision For Environmental Monitoring and Science Education In The New England States," University of Maine Robust Instrumentation Laboratory website
http://www.eece.maine.edu/EE/RIL/ updated 08-04-00.
2. County population data taken from:
U.S. Census Bureau, Census 2000 Summary file 1, Matrices PCT 12 and 13.
Population density data taken from:
U.S. Census Bureau, Census 2000 QuickFacts state and county tables.
Cities with population over 100,000 data taken from:
U.S. Census Bureau, Table SUB-EST2002-01, City and Town Population Estimates: April 1, 2000 to July 1, 2002.

NEW ENGLAND REGION 19
MEETING NOTICES

The following is a listing of Meeting Notices, Dates, and Locations for the New England Region 700 MHz Planning Committee. All meetings were scheduled from 10:00 a.m.until noon. Directions to the individual meetings are posted on the 700 MHz Committee website at http://www.ner700mhz.org.

December 7, 2000	Held at the Daniel Webster College, Nashua, New Hampshire
March 29, 2001	Held at the Massachusetts State Police Headquarters, Framingham, Massachusetts
June 20, 2001	Held at the Vermont State Police Barracks, Chester, Vermont
September 26, 2001	Held at the Municipal Police Headquarters, Scarborough, Maine
December 11, 2001	Held at the Emergency Operations Center, Office of Emergency Management, Cranston, Rhode Island
March 12, 2002	Held at the Connecticut Department of Transportation, Rocky Hill, Connecticut
June 11, 2002	Held at the New Hampshire State Police Headquarters, Manchester, New Hampshire
September 10, 2002	Held at the Massachusetts State Police General Headquarters, 470 Worcester Road, Framingham, Massachusetts
December 10, 2002	Held at the Springfield State Office Building, Springfield, Vermont
March 11, 2003	Held at Maine State Police Barracks, Troop B, Gray, Maine
June 10, 2003	Held at the Emergency Operations Center, Office of Emergency Management, Cranston, Rhode Island
September 9, 2003	Held at the Connecticut Fire Academy, 34 Perimeter Road, Windsor Locks, Connecticut
December 9, 2003	Held at the Department of Public Safety, Division of State Police, 10 Hazen Drive, Concord, New Hampshire.
March 9, 2004	Held at Massachusetts State Police General Headquarters, 470 Worcester Road, Framingham, Massachusetts

June 8, 2004	Held at the Brattleboro Vermont Municipal Center, Grove Street, Brattleboro, Vermont
September 14, 2004	Held at the Kittery Municipal Complex, Kittery, Maine
December 14, 2004	Held at the Emergency Operations Center, Office of Emergency Management, Cranston, Rhode Island
March 8, 2005	Held at the Connecticut Fire Academy, 34 Perimeter Rd, Windsor Locks, Connecticut
June 14, 2005	Held at the New Hampshire Department of Safety, Concord, New Hampshire
September 13, 2005	Held at the Massachusetts State Police General Headquarters, 470 Worcester Road, Framingham, Massachusetts
December 13, 2005	Held at the Brattleboro, Vermont Municipal Center, Grove Street Brattleboro, Vermont
March 14, 2006	Held at Kittery Municipal Complex, Kittery, Maine
June 13, 2006	Held at the Emergency Operations Center, Office of Emergency Management, Cranston, Rhode Island
September 12, 2006	Held at the Connecticut Dept. of Transportation, 280 West Street, Rocky Hill, Connecticut
December 12, 2006	Held at the Department of Public Safety, 10 Hazen Drive, Concord, New Hampshire.
March 13, 2007	Held at Massachusetts State Police General Headquarters, 470 Worcester Road, Framingham, Massachusetts
June 12, 2007	Held at the Putney Volunteer Fire Dept., Putney, Vermont
September 11, 2007	Held at the Kennebunkport Fire Department, 32 North Main Street, Kennebunkport, Maine
December 11, 2007	Held at the Emergency Operations Center, Office of Emergency Management, Cranston, Rhode Island

NEW ENGLAND REGION 19
700 MHZ CHANNEL APPLICATION PROCEDURES

Public safety users wishing to apply for channels in the 769-775 MHz and MHz bands identified by the Federal Communications Commission must meet eligibility and coordination rules established by the Regional Planning Committee and are listed as:

- Local Government Services and Police Services - Association of Public Safety Communications Officials (APCO)
- Fire Service - International Municipal Signal Association (IMSA)
- Forestry Conservation Services - Forestry Conservation Communications Association (FCCA)
- Highway Maintenance Services - American Association of State Highway and Transportation Officials (AASHTO)

REGIONAL PLANNING COMMITTEE APPLICATION PROCEDURES

Applications for frequencies in the 769-775MHz and 799-805MHZ spectrum are subject to pre-application review of operational requirements as established by the FCC in the category into which they fall. Each designated committee shall establish the requirements for use of the respective frequency allocations under their jurisdiction. The categories are:

- Interoperability Spectrum
- State Spectrum (State Band Manager)
- Reserved Spectrum (To be determined by the FCC)
- General Use Spectrum.

Interoperability Spectrum - Frequency use in this category will be allocated by each member State's Interoperability Executive Committee, SIEC, if one exists, or by the Region 19 Regional Planning Committee if there is no SEIC. The designated use of the Interoperability Channels will adhere to the recommendations of the Public Safety National Coordination Committee.

The FCC designated approximately 10 percent (2.6 MHz) of the 700 MHz Public Safety Spectrum for nationwide interoperability communications. State-level organizations are usually in control at large-scale events and disasters or multi-agency incidents. Although the Commission supports the creation of SIECs, some states already have a mechanism in place that is equivalent of an SIEC that could administer the Interoperability channels. The RPC will develop the Interoperability Plan, review applications for base stations, and provide pre-coordination technical review.

The first responsibility is to develop an Interoperability Plan. The plan would decide who will hold the license for the Interoperability Spectrum, as well as to resolve licensing issues. Other responsibilities involved in administering the Interoperability channels include the creation and oversight of incident response protocols, creation of chains of command for incident response and reporting, and executing Memoranda of Understanding and Sharing Agreements. Vermont has delegated the approval process for Interoperability channels to the Regional Planning Committee. Connecticut, Maine, Massachusetts, New Hampshire and Rhode Island have assumed the

responsibility for their respective interoperability plans.

On occasion, the FCC will publish notices and bulletins on their internet website. These FCC "Public Notice" 700 MHz Public Safety Band – Announcement of Updates of Interoperability Spectrum Administration Decisions are found in Appendix J.

The individual State Interoperability Spectrum Points of Contact for the New England Region, Region 19, is found in Table 1.

Connecticut: Department of Information Technology Chief Information Officer Diane Wallace State of Connecticut 101 East River Drive East Hartford, CT 06108-3285 Phone: (860) 622-2419 Email: diane.wallace@po.state.ct.us	**Massachusetts:** Commonwealth of Massachusetts Department of State Police Blair Sutherland, Director, Telecommunications 470 Worcester Road Framingham, MA 01702 Phone: (508) 820-2264 Email: blair.sutherland@pol.state.ma.us
New Hampshire: New Hampshire Department of Public Safety Division of State Police Frederick H. Booth Director 33 Hazen Drive Concord, NH 03305 Phone: (603) 271-2450 Email: fbooth@safety.state.nh.us	**Rhode Island:** Rhode Island State Police Thomas Crotty Radio Communications Director 311 Danielson Pike North Scituate, RI 02857 Phone: (401) 444-1185 Email: tcrotty@risp.ri.gov
Maine: Maine State Police Mark W. Poole Update 36 Hospital Street Augusta, ME 04333 Phone: (207) 624-7091 Email: mark.w.poole@state.me.us	**Vermont:** Region 19 – 700 MHz Regional Planning Committee will administer.

Table 1: Region 19 Interoperability Spectrum Points of Contact

State Spectrum - Frequency use in this category will be allocated by the State Band Manager of each member State in Region 19 or by the Region 19 Regional Planning Committee, if so designated. State Band Managers shall be responsible for planning and managing the frequency database and shared use of the State Spectrum with the bordering State Band Managers, through the Regional Planning Committee. The designated State Band Manager, or Committee, shall establish the requirements for use of the respective frequency allocations under their jurisdiction and file their plans for approval with the New England Region 19 700 MHz Planning Committee.

The state license is a geographic area license based on state boundaries. It differs from site-based licensing which is the normal type of public safety licensing. State licensees are subject to the general limits that govern geographic area licenses, including antenna structures and air navigation,

international coordination, and environmental requirements including quiet zones. The governor, or designee, of each state had the option to apply for up to 2.4 megahertz of spectrum, all narrowband channels, of the 700 MHz band Public Safety spectrum. The application deadline was December 31, 2001. Whatever spectrum was not applied for by this deadline, reverted to General Use Public Safety Spectrum and will be administered by the Regional Planning Committee, or RPC. All states, and the District of Columbia, were granted licenses on January 18, 2002.

The FCC established certain construction and operation requirements to ensure efficient use of the spectrum, including the provision of service to rural and remote areas. The initial construction/operation benchmark was set at 5 years. However, because broadcasters are not required to complete relocations until December 31, 2006, the starting date for calculating the 5-year benchmark is January 1, 2007. As a practical matter, this means that each state license will be granted subject to the condition that the state is providing, or preparing to provide, substantial service to one-third of their population or territory by January 1, 2012 and to two-thirds by January 1, 2017.

States may begin using the state license spectrum when:

- Full power TV or DTV stations vacate the 700 MHz spectrum, and
- Project 25 Phase 1 equipment is available for purchase, and
- The following general operating and technical requirements are met:
    - Coordinating transmitting sites near the U.S./Canada border, and
    - Compliance in quiet zones, and
    - Registration of antenna structures with the FAA and FCC as required under Part 17 of the Commission's Rules.

For further information about the State license, see the Commission's Rules, refer to Appendix K.

Reserved Spectrum - Frequency use in this category will be recommended by the Region 19 Regional Planning Committee if and when the FCC allocates spectrum.

General Use Spectrum - Frequency use in this category will be recommended by the Region 19 Regional Planning Committee.

All agencies requesting spectrum during the initial filing window will be allotted channels if all plan requirements are met. Allotments given in the first window period will be made in multiples of 6.25 KHz units to allow for implementation of various technologies. Technologies requiring 25 KHz will be allotted four 6.25 KHz units. Requests for voice/data channels will be allocated on the basis of two 6.25 KHz units to accommodate one 12.5 KHz channel per voice channel. For narrowband mobile data requests, one mobile data channel will consist of two (2) 6.25 KHz units to accommodate one 12.5 KHz channel. Allotments given after January 1, 2007 will be made in 6.25 KHz units. Applicants should acknowledge their migration path to 6.25 KHz to the Regional Planning Committee when applying for channels in Region 19.

The RPC may request additional information from the requesting agency. This information will aid in the validation of actual spectrum need and help to insure that no requests are duplicated when requests involve multi-agency systems. Small agencies are encouraged to join multi-agency

systems, when possible.

REGION 19 REGIONAL PLANNING COMMITTEE PROCEDURES:

To ensure that all eligible agencies have an equal opportunity to apply for the limited 769-775 MHz and 799-805MHZ MHz spectrum approved by the Federal Communications Commission, the Region 19 Regional Planning Committee will accept applications from eligible entities during two application windows per year. The applications windows are established as May 1 of each calendar year through October 31 of that same year, and November 1 of each calendar year through April 30 of the following year.

The application must contain all information requested and postmarked no later than these dates before being accepted for review by the Committee.

Applications received by November 1, will be reviewed at the Committee's December meeting and voted on at the following March meeting.

Applications received by May 1, will be reviewed at the Committee's June meeting and voted on at the following September meeting.

Mail the completed applications and 20 additional copies to:

Mr. George Pohorilak - Chairman
New England Region 700 MHz Regional Planning Committee
FCC Region 19
P.O. Box 2794
1111 Country Club Road
Middletown, CT 06457-9294

APPLICATION PROCEDURES OVERVIEW

The Committee evaluates and scores each application and compiles a prioritized list of the approved entities and the number of channels they are eligible to receive. The number may be less than the number requested. Channel allocations are approved after analysis by a committee-approved computer engineering program which tests all possible configurations of channels by considering the proposed service area, topography, and the technical parameters and frequency compatibility of existing (incumbent) and proposed systems. (The committee may approve the use of the Computer Aided Pre-Coordination Resource And Database (CAPRAD) system developed and administered by the National Law Enforcement and Corrections Technology Center-Rocky Mountain Region, Denver, CO. This database is designed to facilitate inter-regional coordination of frequencies, provide search and report generating tools, and create a direct interface link to the FCC's Universal Licensing System.)

(The technical parameters and compatibility criteria tested shall be based on those parameters described in TIA Telecommunications Systems Bulletin TSB88B – latest published version, "

Wireless Communications Systems - Performance in Noise and Interference-Limited Situations Recommended Methods for Technology-Independent Modeling, Simulation, and Verification." This document seeks to provide guidance to spectrum managers, system designers and system maintainers for a standardized approach to proof-of-performance and acceptance testing of public safety systems.) The analysis process will produce a list of available channels which may or may not be sufficient to meet the requirements of all applicants. It is possible that an applicant low on the priority list will receive an assignment of channels while none is available for an applicant with a higher priority.

TECHNICAL EVALUATION APPROVAL PROCEDURES

All applications or planned use of Region 19 700 MHz spectrum must undergo a technical evaluation examining the proposed use of 700 MHz channels.

Spectrum Allocation Matrix - See Section 10, Scoring Matrix and Worksheet.

Technical Requirements

Spectrum Utilization

The Region 19 Planning committee will adhere to the National Public Safety Telecommunications Council's (NPSTC) 700 MHz General Use Channel sort as shown on the CAPRAD database for narrowband General Use Channels (See Appendix L). Region 19 will participate in the CAPRAD database and keep the Regional Plan and current frequency allotment/allocation information on the database.

The Region 19 Planning Committee has the ability to accept recommendations from the committee and, if approved, the authority to change the original frequency allotment. In order to keep the most effective frequency allotments within Region 19, a quarterly review of the allotments will be made at the scheduled meetings by the full committee and recommended changes to the plan will be voted on. The majority of members in attendance at a meeting of the full Regional Planning Committee must approve any changes to the Regional allotments.

If at any time a system is allocated channels within Region 19 and the system cannot be developed within the agreed upon guidelines (slow growth), the channels will be returned to the county pool allotments they originated from and again be available to other agencies in the county. If plan modifications are approved, the Chairperson will, if necessary, obtain adjacent Region approval and file a plan amendment indicating the approved changes with the Federal Communications Commission.

In this plan, the 700 MHz committee is striving to utilize the spectrum as efficiently as possible. The total request for general pool voice and narrowband data totals 1,232 channels. Allotments will be made on the basis of one 6.25 channel for each voice channel. For each narrowband data channel (request of less than 19.2 kbps) the allocation of two 6.25 KHz units will be made to accommodate 12.5 kHz of spectrum. This conforms to the FCC intent to recommend use of technology that yields one voice path for each 6.25 kHz of spectrum.

Procedure for Frequency Coordination

Assignments will be based on a defined service area of each applicant. This will normally be an area defined by geographical or political boundaries such as city, county or by a data file consisting of line segments creating a polygon that encloses the defined area. The service contour is normally allowed to extend slightly beyond the geo/political boundaries such that systems can be designed for maximum signal levels within the boundaries, or coverage area. Systems must also be designed to minimize signal levels outside their geo/political boundaries to avoid interference into the coverage area of other co-channel users.

For co-channel assignments, the 40dBμ service contour will be allowed to extend beyond the defined service area by 3 to 5 miles, depending on the type of environment: urban, suburban or rural. The co-channel 5 dBμ interfering contour will be allowed to touch but not overlap the 40 dBμ service contour of the system being evaluated. All contours are (50,50).

For adjacent and alternate channels, the 65dBμ interfering contour will be allowed to touch but not overlap the 40 dBμ service contour of the system being evaluated. All contours are (50,50).

Applicants must provide data showing that practical field tests have been conducted. An overall system diagram showing the latitude, longitude and elevation (meters) of the site(s), power out, ERP, and antenna height must be provided. In addition, the applicant must provide antenna specifications for each site(s).

Due to the existing TV assignments and HDTV assignments, most of Region 19 cannot use this spectrum until the HDTV implementation is completed. Given this date uncertainty, this plan does not limit an agency from initially planning/implementing a system (if it conforms to FCC rules).

Low Power Assignments

Channel assignments for low power portables shall have a maximum ERP of 2W. Low power mobiles shall be required to operate with an ERP of 2W with an antenna not to exceed seven meters from the ground elevation. An applicant may request, under special circumstances, an ERP of 5W for a mobile unit with the identified antenna restriction of seven meters.

REGION 19 REGIONAL PLANNING COMMITTEE SCORING PROCEDURES

Refer to Scoring Matrix and Matrix Worksheet located in Section 10.

REGION 19 700 MHz RPC APPLICATION PROCEDURES

To ensure that all eligible agencies have an equal opportunity to apply for the limited 769-775 MHz and 799-805 spectrum approved by the Federal Communications Commission, the Region 19 Regional Planning Committee will accept applications from eligible entities during two application windows per year. The applications windows are established as May 1 of each calendar year through October 31 of that same year, and November 1 of each calendar year through April 30 of the following year.

Application procedures for Region 19 comprise of the following steps:

1. Eligible Entity Submits Request for Channel Assignment. Eligible entity presents detailed application and request for channel assignment, in writing, to RPC. Proposals will be considered for State Frequencies, General Use Frequencies, or Interoperability Channels.

Each application must, as a minimum, contain:
- Specific Frequency Details
- Justification – must show ALL intended system uses
- List of 6.25 KHz channels by number and frequency
- Channel Bandwidth - showing each grouping of 6.25 KHz channels (See Appendix L)
- Technical Parameters
- Channel Loading and Use
- Area of Operation Map Detail
- Specific System Design Details
- Existing Allocations of Frequencies in all bands
- Functional Block Diagram of proposed system
- Preliminary Coverage and Interference Analysis
- Frequency givebacks (if applicable)
- An Interference Prediction Map using latest version of TIA/EIA TSB88 Guidelines
- Details of Interference Predictions and Protection

Applications must be submitted with a cover letter on official agency/organization letter head and signed by the chief elected official of the municipality (if a town-wide system) or the head of the organization requesting the frequencies if it is a single agency application.

Applications submitted without official cover letters will be rejected.

Each Applicant may also be required to:
- Present further details, or documentation, as requested by the RPC.
- Give formal presentation of application to the RPC.
- Be present, or have a representative present, during initial application review of the proposal and, if necessary, subsequent reviews by the Regional Planning Committee.

2. Planning Committee Reviews Proposal. The RPC begins review of application and proposal material.

3. RPC Resolves Proposal Conflicts or Errors and Recommends Frequency Channel Assignments. Intra-regional disputes resolved.

4. Regional Planning Committee Scores Application.

5. Entity Submits Application to Frequency Coordinator. The RPC reviews the application summary for accuracy and pre-coordination of frequencies and then forwards the application to the coordinator. The coordinator reviews current allotments and eligibility and resolves potential conflicts or issues.

6. Frequency Coordinator Resolves Application Conflicts.

7. Coordination with Adjacent Regions and Countries:
The regions adjacent to Region 19 are:

- Region 8: Southern New York and New Jersey
- Region 30: Northern New York – Albany, except area of Southern New York (Region 8) and New York – Buffalo (Region 55).

Refer to Appendix E for listing of Region states and counties. See Appendix N for Inter-Regional Dispute Resolution Agreement.

Canada is adjacent to Region 19. Refer to Section 9 for coordination procedures.

8. Coordinator Forwards Application to FCC.
The RPC performs database update.

9. FCC Issues License to Entity.

NEW ENGLAND REGION 19
REGIONAL INTEROPERABILITY (I/O) CHANNEL USAGE

The narrowband voice and data interoperability channels (sixty-four at 6.25 kHz bandwidth) are defined on a nationwide basis. Appendix A shows the designation of these channels as defined by the 700 MHz National Coordination Committee (NCC). Since they are nationwide channels, each channel must have the same usage within each region and across regional borders. They have been sub-divided into different service categories.

The current proposal, adopted by the NCC, is to use the ANSI/TIA 102 Standards (i.e., Project 25 digital protocols) as the Digital Interoperability Standard for the conventional-only mode of operation on the narrowband voice and data interoperability channels. There are two Calling channel sets and 30 Tactical channel sets. Channel Sets are comprised of two 6.25 kHz channels each. The Tactical channel sets are subdivided into the following categories:

- 4 for Emergency Medical Services,
- 4 for Fire Services,
- 4 for Law Enforcement Services,
- 2 for Mobile Repeater operation,
- 2 for Other Public Services,
- 12 for Public Safety General Services.
- 2 for Data.

Calling Channels

Because the 700 MHz band will be initially encumbered by broadcast television, two of the interoperability channels sets are reserved as "Calling Channels". Member states, that have interoperability systems, will define when and where the two calling channels are to be used. These calling channels, which appear in the Table of Interoperability Channels (Appendix A) as “7CALLA” and “7CALLB” must be monitored, as appropriate, by licensees who employ interoperability infrastructure in the associated channel group. When calling channels are integrated into infrastructure, their coverage must at least match the coverage of the other interoperability channels in the system. In addition to the usual calling channel functions, the calling channels may to be used to notify users when a priority is declared on one or more of the tactical interoperability channels

Tactical Channels

Tactical channel users will contact a dispatch center on one of the "Calling Channels" and be assigned an available tactical channel. Deployable narrowband operations (voice, data, trunking) shall be afforded access to the same pool of channels used for similar fixed infrastructure operations. In the event of conflict between multiple activities, prioritized use shall occur.

Encryption
Use of encryption is prohibited on calling channels and permitted on all other interoperability channels. A standardized encryption algorithm for use on the interoperability channels must be TIA/EIA IS AAAAA Project 25 DES encryption protocol.

Deployable Systems
General Public Safety Services Channels labeled 7TAC01 through 7TAC07, 7TAC15 through 7TAC21, or both, shall be made available for "deployable" equipment used during disasters and other emergency events that place a heavy, unplanned burden upon in-place radio systems. States (or Regional Planning Committees) shall consider the need for both "deployable trunked" and "deployable conventional" systems and make those channels available to all entities in their State/region.

This Plan strongly supports use of deployable systems, both conventional and trunked. Deployable systems are prepackaged systems that can deploy by ground or air to an incident to provide additional coverage and capacity on interoperability channels. This will minimize the expense of installing extensive fixed infrastructure and recognizes the difficulty of providing complete coverage of the region due to environmental constraints.

Agencies must have conventional deployable systems capable of being tuned to any of the operability tactical channels. Those agencies that are part of a multi-agency trunk system and commonly provide mutual aid to each other are encouraged to have trunked, deployable systems that operate on the tactical channels designated by the FCC for this use. The SIECs will develop the operational details for deploying these systems.

It is expected that the tactical channels set aside for trunked operation will be heavily used by deployable systems. Therefore, the tactical channels cannot be assigned to augment general use trunked systems.

Trunking on the Interoperability Channels
Trunking the Interoperability channels on a secondary basis shall be limited to operation on eight specific 12.5 kHz channel sets, divided into two subsets of four 12.5 kHz channels. One subset is defined by 7TAC01 through 7TAC07 and the other by 7TAC15 through 7TAC21.

Any licensee implementing base station operation in a trunking mode on Interoperability Channels shall provide and maintain on a continuous (24 hr x 7 day) basis at its primary dispatch facility the capability to easily remove one or more of these interoperability channels, up to the maximum number of such trunking channels implemented, from trunking operation when a conventional access priority that is equal to or higher than their current priority is implemented. Use of the interoperability channels for day-to-day operations is not allowed. The RPC limits the number of Interoperability channels that may be integrated into any single trunked system.

For systems having 10 or fewer "general use" voice paths allocated, one (1) trunked Interoperability Channel set is permitted. For systems having more than 10 "general use" voice paths allocated, two (2) trunked Interoperability Channel sets are permitted. States (or Regional Planning Committees) may consider allotting additional Interoperability Channel set(s) for

trunked systems having more than 20 "general use" voice paths allocated upon a showing of need and upon a determination that assignment of the Interoperability Channel set(s) will not adversely impact availability of those channels to other trunked and/or conventional radio systems in the area (e.g. a single consolidated trunked system servicing all public safety agencies in an area might satisfy this criterion). The maximum number of Interoperability channel sets for trunked systems permitted for use by an individual licensee is four.

The channels (two 6.25 kHz pairs) in Reserve Spectrum immediately adjacent to the 7TAC channels where secondary trunking is permitted [(21, 22), (101, 102)], etc. are available for secondary trunking, but only in conjunction with the adjacent Interoperability 12.5 kHz channel pair in a trunked system and will be administered by the State (or RPC). If the RPC permits 25 kHz trunking on interoperability channels, these Reserve Spectrum guard channels become part of those trunking channels.

Standard Operating Procedures on the Trunked I/O Channels For I/O Situations Above Level 4

The safety and security of life and property determines appropriate interoperable priorities of access and/or reverting from secondary trunked to conventional operation. In the event secondary trunked access conflicts with conventional access for the same priority, conventional access shall take precedence. Access priority for "mission critical" communications is recommended as follows:

1. Disaster and extreme emergency operations for mutual aid and interagency communications;
2. Emergency or urgent operation involving imminent danger to life or property;
3. Special event control, generally of a preplanned nature (including Task Force operations);
4. Single agency secondary communications. [Priority 4 is the default priority when no higher priority has been declared.]

For those systems employing I/O channels in the trunked mode, the SIECs (or RPC) must set up interoperability talk groups and priority levels for those talk groups so that it is easy for dispatch to determine whether the trunked I/O conversation in progress has priority over the requested conventional I/O use. SIECs (or RPCs) must also determine whether a wide-area I/O conversation has priority over a local I/O conversation.

Standard Nomenclature

Standard nomenclature will be used so that all 700 MHz public safety subscriber equipment using an alphanumeric display only be permitted to show the recommended label from the Table in Appendix A when the radio is programmed to operate on the associated 700 MHz channel set. The Table shows the recommended label for equipment operating in the mobile relay (repeater) mode. When operating in direct (simplex) mode, the letter "D" appended to the end of the label is recommended.

Data Only Use of the I/O Channels

Narrowband data-only interoperability operation on the Interoperability channels on a secondary basis shall be limited to two specific 12.5 kHz channel sets. One set is defined by 7DTAC13 and the other by 7DTAC51.

NEW ENGLAND REGION 19
ADDITIONAL SPECTRUM SET ASIDE FOR INTEROPERABILITY WITHIN THE REGION

Region 19 shall have the ability to assign additional spectrum for Interoperability. The spectrum will only be available for use within Region 19. Region 19 will designate which channels will be used out of the General Use spectrum and will update the NLECTC database. Region 19 will justify the assignment of this additional spectrum and include operational guidelines as well as user criteria with eligibility requirements. If Region 19 assigns additional spectrum for interoperability, concurrence from adjoining regions will be requested.

State Interoperability Executive Committees

State Interoperability Executive Committees (SIEC) will administer State Interoperability Plans in each of the member states. These plans include, but are not limited to, interoperability operations on the 700 MHz interoperability channels. These committees should include an equal number of representatives each providing regional representation from state, county/parish (where applicable), and local governments, with additional representation from special districts and federal agencies, as appropriate. Such committees may represent all disciplines, in which case emergency medical, fire, forestry, general government, law enforcement, and transportation agencies from each level of government shall be represented equally. Alternatively, Committees may represent a single discipline in which case it is only necessary to have membership from the different levels of government previously described.

The states within Region 19 will use the Incident Command System (ICS) as a guideline in developing their regional interoperability plans. The individual States will hold licenses on interoperability channels for all infrastructure and subscriber units within their state. The States will have oversight of the administration and technical parameters of the infrastructure for the interoperability channels within their state (or region).

Templates for a *Memorandum of Understanding for Operating the 700 MHz Interoperability Channels* and a *Sharing Agreement* are located in Appendices B and C respectively. The MOU shall be typed on appropriate committee letterhead and the Sharing Agreement on agency letterhead. (See Appendices B & C)

Minimum Channel Quantity

The minimum channel quantity for calling and tactical channel sets requires 8 I/O channel slots in each subscriber unit. Including Direct (simplex) mode on these channel sets, up to 16 slots in each radio will be programmed for I/O purposes. Backbone issues are deferred to the SIECs and/or RPCs. Subscriber units, which routinely roam through more than one jurisdiction up to nationwide travel will require more than the minimum channel quantity.

The "CALL"ing channel sets (7CALLA and 7CALLB) shall be implemented in all voice subscriber units in repeat-mode and direct (simplex) mode. "Direct" mode is permitted in the absence of repeat operation or upon prior dispatch center coordination. If the local CALLing channel set is not known, 7CALLA or CALLA shall be attempted first, then 7CALLB. Attempts shall be made on the repeater mode first then on the direct (simplex) mode. A minimum set of TACtical channels shall be implemented in every voice subscriber unit in the direct (simplex) mode. Specific channel sets are shown below:

- 7TAC11 & 7TAC49 channel sets
- 7TAC09 & 7TAC47 channel sets
- 7TAC29 & 7TAC59 channel sets

Direct (Simplex) Mode

In direct (simplex) mode, transmitting and receiving on the output (transmit) side of the repeater pair for subscriber unit-to-subscriber unit communications at the scene does not congest the repeater station with unnecessary traffic. However, should someone need the repeater to communicate with the party who is in "direct" mode, the party would hear the repeated message, switch back to the repeater channel, and join the communications. Therefore, operating in direct (simplex) mode shall only be permitted on the repeater output side of the voice I/O channel sets.

Common Channel Access Parameters

Common channel access parameters for all voice I/O shall utilize the default values (ANSI/TIA/EIA-102,BAAC-2000, approved April 25, 2000) provided in every radio regardless of manufacturer. Any common channel access parameters not provided shall be programmed accordingly. These parameters include the following:

- P25 Network Access Code - $293 (default value)
- P25 Manufacturers ID - $00 (default value)
- P25 Designation ID - $FFFFFF (designates everyone)
- P25 Talkgroup ID - $0001 (default value)
- P25 Message Indicator $000000… 0, out to 24 zeros (unencrypted)
- P25 Key ID - $0000 (default value)
- P25 Algorithm ID - $80 (unencrypted)

Any deviation from P25 Network Access Code - $293 (default value) will not be permitted unless the SIEC (or the RPC) can demonstrate in a Plan amendment through the FCC-approved process that the intent of P25 Network Access Code - $293 (default value) will be preserved on ALL conventional voice I/O channels – transmit and receive.

NEW ENGLAND REGION 19
ALLOCATION OF "GENERAL USE" SPECTRUM

Region 19 uses the following pre-planning methods to avoid problems with adjacent Region coordination.

1. Region 19 will use the NPSTC-CAPRAD pre-designated initial allotments.
2. Applications within the Region will be handled on a first-come, first-served basis.
3. Region 19 will attempt to satisfy applicants with the 821 MHz pool. If 821 MHz spectrum is not available, 700 MHz spectrum will be allocated.

When allocating 700 MHz channels near the Region borders, multiples of 6.25 KHz units will be used to distribute spectrum. The use of 6.25 kHz units will allow for 12.5 and 25 KHz based technology and will allow for technology-neutral pre-planning.

If, after five years, the county or city/town has not built out a system at 700 MHz, its allotted frequencies will be placed back into the Region's 'general use' pool and be available to any applicant on a first-come, first-served basis.

Procedures for use near the Canadian border follow 47 CFR, Part 9, Subpart R - Regulations Governing the Licensing and Use of Frequencies in the 769-775 & 799-805 MHz Bands as excerpted below.

§ 90.533 Transmitting sites near the U.S./Canada or U.S./Mexico border.

Since the release of the 700MHz, Second Notice of Proposed Rule Making, Canada announced that, as of August 31, 2011, it will have completed its DTV transition, including on channels 64 and 69. [1] Thus, while Canada has now established a firm DTV transition date, it will continue to trail the U.S. DTV transition by two and a half years.

§ 90.533 Transmitting sites near the U.S./Canada or U.S./Mexico border.

This section applies to each license to operate one or more public safety transmitters in the 763-775 MHz and 793-805 MHz bands, at a location or locations North of Line A (see § 90.7) or within 120 kilometers (75 miles) of the U.S.-Mexico border, until such time as agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, become effective governing border area non-broadcast use of these bands. Public safety licenses are granted subject to the following conditions:

[1] Section 90.535 is amended by revising the introductory paragraph and paragraph (a) to read as follows:

(a) Public safety transmitters operating in the 763-775 MHz and 793-805 MHz bands must conform to the limitations on interference to Canadian television stations contained in agreement(s) between the United States and Canada for use of television channels in the border area.

(b) Public safety facilities must accept any interference that may be caused by operations of UHF television broadcast transmitters in Canada and Mexico.

(c) Conditions may be added during the term of the license, if required by the terms of international agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, regarding non-broadcast use of the 763-775 MHz and 793-805 MHz bands.

This section applies to each license to operate one or more public safety transmitters in the 769–775 MHz and 799–805 MHz bands, at a location or locations North of Line A (see § 90.7) or within 120 kilometers (75 miles) of the U.S.-Mexico border, until such time as agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, become effective governing border area non-broadcast use of these bands. Public safety licenses are granted subject to the following conditions:

(a) Operation of public safety transmitters must not cause harmful interference to the reception of television broadcasts transmitted by UHF TV broadcast stations located in Canada or Mexico. In addition, public safety base, control, and mobile transmitters must comply with the interference protection criteria in § 90.545 for TV/DTV stations in Canada and Mexico.

(b) Public safety facilities must accept any interference that may be caused by operations of UHF television broadcast transmitters in Canada and Mexico.

(c) Conditions may be added during the term of the license, if required by the terms of international agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, regarding non-broadcast use of the 769–775 MHz and 799–805 MHz bands.

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Low Power Secondary Operations

To facilitate portable operation by any licensee, and to provide channels for such operation without impacting the use of primary channels, certain low power secondary use will be permitted. Any public safety entity otherwise licensed to use one or more channels may receive authorization to license an additional channel for secondary use, subject to the following criteria:

- All operation of units on such authorized channels will be considered secondary to other licensees on both co-channel and adjacent channels.
- No channels on, or adjacent to, those designated in the Plan for wide area operation and/or mutual aid use will be authorized.

- Channels will be authorized for use in specific areas only; such areas to be within the licensees authorized operational area.
- Maximum power will be limited to 6 watts ERP.
- Use aboard aircraft is prohibited.
- Applications for channels may be submitted to the RPC for consideration at any time and must be accompanied by a showing of need. The RPC may select and authorize licensing of these secondary use channels after consideration of potential interference to co-channel and adjacent channel allotments, allocations and licensees. Authorization may be granted for use of any suitable channel, without prior allotment or allocation to the requesting agency.
- In the event the channels authorized for low power secondary operation are needed by others during any window opening for reassignment, no protection will be afforded to the licensed secondary user, and they may be required to change frequencies or surrender licenses to prevent interference to primary use channels.

Low Power Channels

The FCC in the 700 MHz band plan set aside channels 1 – 8 paired with 961 – 968 and 949 – 958 paired with 1909 – 1918 for low power use for on-scene incident response purposes using mobiles and portables subject to Commission-approved regional planning committee regional plans. Transmitter power must not exceed 2 watts (ERP).

Channels 9 – 12 paired with 969 – 972 and 959 – 960 paired with 1919 – 1920 are licensed nationwide for itinerant operation. Transmitter power must not exceed 2 watts (ERP).

These channels may operate using analog operation. To facilitate analog modulation, this plan will allow aggregation of two channels for 12.5 kHz bandwidth. On scene temporary base and mobile relay stations are allowed (to the extent FCC rules allow) with an antenna height limit of 6.1-meter (20 feet) above the ground. However, users are encouraged to operate in simplex mode whenever possible. This plan does not limit use to only analog operations; these channels are intended for use in a wide variety of applications that may require digital modulation types.

In its dialog leading up to CFR 90.531 allocating the twenty-four low power 6.25 kHz frequency pairs (of which eighteen fall under RPC jurisdiction), the FCC suggested that there is a potential for multiple low power applications, and absent a compelling showing, a sharing approach be employed rather than making exclusive assignments for each specific application because low power operations can co-exist [in relatively close proximity] on the same frequencies with minimal potential for interference due to the 2 watt power restrictions.

The following assignments associated with the eighteen narrowband channels are to be used:

- Channel numbers 1 – 4 and 949 – 952 are set aside as *generic base* channels for use by public safety agencies operating within Region 19, and the complementary channel #'s 961 – 964 and 1909 – 1912 are set aside as *generic mobile* channels also for use by public safety agencies likewise operating within Region 19.
- Channel numbers 5 – 8 are designated as *Fire Protection base* channels for licensing and exclusive use by the Fire Protection discipline, and the complementary channel #'s 965 – 968 are set aside as *Fire Protection mobile* channels also for licensing and exclusive use by the Fire Protection discipline.

- Channel numbers 953 – 956 are set aside as *Law Enforcement base* channels for licensing and exclusive use by the Law Enforcement discipline, and the complementary channel #'s 1913 – 1916 are set aside as *Law Enforcement mobile* channels also for licensing and exclusive use by the Law Enforcement discipline.
- Channel numbers 957 – 958 are set aside as *Fire Protection/Law Enforcement base* channels for licensing and use by the Fire Protection and Law Enforcement disciplines, and the complementary channel #'s 1917 – 1918 are set aside as *Fire Protection/Law Enforcement*.

Simplex operations may occur on either the base or mobile channels. Users are cautioned to coordinate on scene use among all agencies involved. Users should license multiple channels and be prepared to operate on alternate channels at any given operational area.

System Implementation

Most areas in New England will be precluded from immediately implementing systems due to protection requirements of existing television stations. These stations may not move until year 2006, or after, depending on the 85% market penetration of digital TV implementation.

Therefore this plan will not require agencies to implement systems using the 700 MHz spectrum allocated to them until TV station(s) requiring protection relocate to another TV channel. After that date, agencies must release a System RFP within one year and sign a contract with a vendor within one year of releasing the System RFP. For the New England States, implementation of general use channels shall be governed by FCC rule 90.529 (b) and (c). (Refer to Appendix L.)

If an agency does not implement in the time frames specified, that agency's allotment may be removed from the allotment list. An Agency may file a request with the Region Chair for an extension of time to implement. The request should include all details describing why the agency has not implemented and a new implementation schedule. The Committee Chair will advertise this request and set a date for the full committee to vote on the request.

NEW ENGLAND - REGION 19
SCORING MATRIX - WORKSHEET

SCORING MATRIX

In order to evaluate competing applications within the Region, applications will be scored utilizing the following criteria:

- service,
- inter-systems communications,
- loading,
- spectrum efficient technology,
- systems implementation factors,
- geographic efficiency, and
- givebacks.

Point values for each criteria have been established and are listed below. For each window period, applications will be scored and listed in order of points awarded. Spectrum allocations will be awarded based upon the priority listing resulting from the award of points. In the event of a tie score, the date of receipt of the application will serve as the tiebreaker.

1. Service (Maximum Score - 720 Points)

The point value for the service category is determined by allocation of points as determined by the scoring for the particular service as listed in Table 1.1. For those multiple agency combinations, the awarded points are a function of the combined points for the respective services. Combined agency systems will be scored with the combined points of the two highest point valued agency scores. A multiple agency system with more than two agencies will benefit from the combination of points. A multiple agency system with more that two agencies will not receive an excessive point value under this approach, thereby minimizing any potential for token agency participation for the purpose of raising the point value. Assuming a hypothetical system of a combined police and fire (each agency categorized as A or 360 points each), the maximum points awarded would be 720 (360 + 360). A multiple agency system with combinations of lower point values would not be able to be scored higher than that single agency public safety system. The combination of D+C- or C-+ C, or D+C would only be, at the highest combination, 180 points (C- + C), which would be less than a B or A- or A single agency system. (See attached point combinations - Table 1.2)

Organizations are categorized by a letter value that equates to points. The letter value point scores are as follows:

A = 360 points
A- = 300 points
B = 240 points
B- = 180 points
C = 120 points
C- = 60 points
D = 30 points

2. Intersystem Communications (Maximum score - 100 points)

Scoring for this section is based upon the degree of interoperability between government hierarchy levels and emergency services during times of an emergency. Applicants will be awarded points for the degree of interoperability demonstrated. Applicants shall indicate how the proposed system will achieve interoperability; specific information regarding the technology or method used must be submitted.

- Proposed systems providing for state, federal and local interoperability will be awarded 100 points;
- Proposed systems providing for state and local interoperability will be awarded 75 points;
- Proposed systems providing for only local interoperability will be awarded 50 points;
- Systems with no proposed interoperability will not receive any points in this category.

3. Loading (Maximum score - 150 points)

Is the system part of a cooperative, multi-organization system? Is the application an expansion of an existing 700, 806 and/or 821MHz system? Have all 806 and/or 821 channels been assigned (where technically feasible)? A showing of maximum efficiency or a demonstration of the system's mobile usage pattern will be required in addition to loading information. Additional factors to be considered are population, number of units, number of talk groups. Points are awarded in this category based upon the following criteria:

- For a statewide system, 150 points;
- For a multi-town system, 100 points;
- For a multi-agency system (single town), 50 points;
- For an all governmental agencies in a single jurisdiction, 125 points;
- For a cooperative system with less than all services, 25 points.

4. Spectrum Efficient Technology (Maximum score - 350 points)

How spectrally efficient is the system's technology? For voice systems the following criteria will be used. Trunked systems are considered efficient as are any technological systems feature which is designed to enhance the efficiency of the system and provide for the efficient use of the spectrum. Points are awarded in this category based upon the following criteria:

- For a trunked system, 150 points;
- For a non-trunked system, no points will be awarded;
- For a system utilizing 6.25kHz spacing, 100 points will be awarded;
- For a system utilizing 12.5kHz spacing, 50 points will be awarded;
- For a system utilizing 25kHz spacing, 0 points will be awarded;
- For a digital system, 50 points will be awarded;
- For an analog system, 0 points will be awarded;
- For a system with a low ERP (less than 200 watts), 50 points will be awarded;
- For a system with a high ERP (greater than 200 watts), no points will be awarded.

For data only systems the following criteria will be used;

- For 50 kHz systems, 200 points will be awarded;
- For 100 kHz systems, 100 points will be awarded;
- For 150 kHz systems, 50 points will be awarded;
- For digital systems, 50 points will be awarded;

- For data analog systems, 0 points will be awarded.

5. Systems Implementation Factors (Maximum score 100 points)

Scoring for this section is based upon funding and system planning. Applicants must provide complete engineering design and a construction/implementation schedule. If the proposed system is intended to be implemented under a slow growth (within the next five years), plan a statement to that effect must be included. If slow growth is not sought, a time table must be included that clearly defines the implementation schedule. The Chief Elected Official or the Chief Executive Officer of the organization submitting the application must submit funding documentation. The funding documentation must clearly state the funding source and must match the implementation schedule. Points in this category are awarded as follows:

- For a complete engineering design, 25 points;
- For an incomplete or no engineering design, minus 25 points;
- For a valid budget commitment, 25 points;
- For no budget commitment minus, 25 points;
- For proof of site acquisition or proof of existing site ownership, 25 points;
- For no site acquisition, minus 25 points;
- For signed CEO letter, 25 points;
- For failure to submit 20 copies, minus 25 points.

6. Geographic Efficient (Maximum Score - 100 points)

Scoring for this section is based upon the ratio of subscriber units (mobiles) to area covered and the channel reuse potential. The higher the ratio (mobiles divided by square miles of coverage), the more efficient the use of the frequencies. Those systems which cover large geographic areas will have a greater potential for channel reuse and will therefore receive a higher score in this subcategory. Points awarded in this category are as follows:

- For a statewide system, 100 points;
- For a county or regional system, 75 points;
- For a city/town system, 50 points;
- For a partial town/city system, minus 50 points.

7. Givebacks (Maximum score - 200 points)

Consider the number of channels given back, frequency band and bandwidth. Consider the extent of availability and usability of those channels to others. Points awarded in this category are awarded as follows:

- For low band givebacks, 50 points;
- For high band givebacks, 100 points;
- For UHF givebacks, 200 points;
- For 800Mhz givebacks, 200 points;
- For no give backs, minus 50 points;
- For long term give backs, minus 25 points.

In no case shall the total exceed the maximum value for this category. In the event the point combinations for givebacks exceed 200 points, only the maximum value of 200 will be assigned.

Point Summary

1.	Service	(Maximum score, 720 points)
2.	Intersystem Communications	(Maximum score, 100 points)
3.	Loading	(Maximum score, 150 points)
4.	Spectrum Efficient Technology	(Maximum score, 350 points)
5.	Systems Implementation Factors	(Maximum score, 100 points)
6.	Geographic Efficient	(Maximum score, 100 points)
7.	Givebacks	(Maximum score, 200 points)
Total Possible Points - Sum of All Categories		1,720 points

TABLE 1.1 - SERVICE CATEGORY CODES

Service	Code
Police	A
Auxiliary Police	A
Fire	A
Municipal Emergency Medical	A
Volunteer Rescue	A
Ambulance Service - Public Safety	A
Highway	A-
Forest Fire	A-
All Government	B
Security Patrol	B
Emergency Management	B
Conservation	B
Hospital	B
Disaster Relief Organizations	B
Transit Systems	B-
All Medical Services	B-
Utility Boards	C
School Boards	C
Invalid Coach	C
Physically Disabled	C
School Buses	C
Private	C
Public	C
OEM Evacuation Transit	C
Beach Patrol	C
Communications Standby Fac.	C
Repair of Communications	C
Maintenance	C-
Physicians	C-
Veterinarians	C-
Non-Governmental	D

TABLE 1.2
SCORING POINT VALUES

Multiple Agency Combinations	Maximum Points
A+A	720
A+A-	660
A+B	600
A+B-	540
A+C	480
A+C-	420
A+D	390
A- + A-	600
A- +B	540
A- +B-	480
A- +C	420
A- +C-	360
A- +D	330
B+B	600
B+B-	420
B+C	360
B+C-	300
B+D	270
B- + B-	360
B- + C	300
B- + C-	240
B- + D	240
C+C	180
C+C-	150
D+D	60

NEW ENGLAND REGION 19
COORDINATION WITH ADJACENT REGIONS

New England Region 19 will contact the chairs of the adjacent Regions to determine the status of their respective plans. Prior to submission to the Federal Communications Commission, Region 19 will obtain adjacent region concurrences.

Regions adjacent to Region 19 are Regions 8 and 30. Region 8 is comprised of Metropolitan New York and Region 30 is comprised of the majority of New York State. The contacts for these regions are:

Region 8, Metropolitan New York
William (Bill) Gardner, Director of Police Communications
Suffolk County Police Department
Command 5340
30 Yaphank Ave.
Yaphank, NY 11980-9705
Phone: (631) 852-6431
Fax: (631) 366-7383
Email: Bgct4@aol.com

Region 30, New York State, northern and western counties
David Cook
New York State, Office of Technology
State Capitol, ESP
P.O. Box 2062
Albany, NY 12220-0062
Phone: (518) 443-2045
Fax: (408) 580-8496, or
(518) 443-2787
Email: david.cook@oft.state.ny.us

Counties or other geographic subdivisions within 70 miles of the Regional border must share spectrum with the adjacent Region(s). The appropriate ratio of channels shall be allotted to counties/areas in adjacent Regions based upon each county's needs. Up until 2007, the Region 19 Committee will use multiples of 6.25 KHz building blocks to conform with the national approach. After 2007, the Region 19 Committee will utilize a 6.25 KHz building block. To allocate 700 MHz channels near the Region borders, a 6.25 kHz building block will be used to distribute spectrum. Multiple blocks of 6.25 kHz may be allotted up to a total of 25 kHz. Since multiple technologies (FDMA, TDMA, etc.), bandwidths (6.25, 12.5, 25 kHz), and modulations will be available, multiple allotments of 6.25 KHz will accommodate users but avoid creation of orphan channels.

NEW ENGLAND REGION 19 700 MHZ COMMITTEE

CERTIFICATION
REGARDING PUBLIC ACCESS TO PLANNING COMMITTEE MEETINGS

I hereby certify that all planning committee meetings, including subcommittee or executive committee meetings, pursuant to the adoption of this Regional Plan, were open to the public.

Notification was provided by mail or email sent to public safety and public service organizations and to organizations representing eligible agencies.

Minutes of the meetings are found in Appendix G - Initial Planning Meeting, Meeting Minutes and Attendance.

Meeting notices are found in Appendix J - FCC Notices and Bulletins.

The meeting notification list is found in Appendix M - Notification List.

George Pohorilak 6/17/04

George Pohorilak Date
Chairman, New England Region 19 700MHz Committee

APPENDIX A

TABLE OF INTEROPERABILITY CHANNELS

700 MHz Interoperability Channels, Labels, and Usage

	12.5 kHz CHANNEL PAIR	CHANNEL LABEL (proposed)	RADIO SERVICE	TALK-AROUND	CHANNEL LABEL (proposed)	USE/MISC NOTES
01	Pair 23-24/983-984	7TAC58	General Public Safety Service (secondary trunked)	Channel 23-24	7TAC58D	
02	Pair 39-40/999-1000	7CAL59	Calling Channel	Channel 39-40	7CAL59D	mandatory
03	Pair 63-64/1023-1024	7EMS60	EMS	Channel 63-64	7EMS60D	
04	Pair 79-80/1039-1040	7EMS61	EMS	Channel 79-80	7EMS61D	
05	Pair 103-104/1063-1064	7TAC62	General Public Safety Service (secondary trunked)	Channel 103-104	7TAC62D	
06	Pair 119-120/1079-1080	7TAC63	General Public Safety Service	Channel 119-120	7TAC63D	mandatory
07	Pair 143-144/1103-1104	7FIRE64	Fire	Channel 143-144	7FIRE64D	
08	Pair 159-160/1119-1120	7FIRE65	Fire	Channel 159-160	7FIRE65D	
09	Pair 183-184/1143-1144	7TAC66	General Public Safety Service (secondary trunked)	Channel 183-184	7TAC66D	
10	Pair 199-200/1159-1160	7TAC67	General Public Safety Service	Channel 199-200	7TAC67D	
11	Pair 223-224/1183-1184	7LAW68	Police	Channel 223-224	7LAW68D	
12	Pair 239-240/1199-1200	7LAW69	Police	Channel 239-240	7LAW69D	
13	Pair 263-264/1223-1224	7TAC70	General Public Safety Service (secondary trunked)	Channel 263-264	7TAC70D	
14	Pair 279-280/1239-1240	7DAT71	Mobile Data	Channel 279-280	7DAT71D	
15	Pair 303-304/1263-1264	7MOB72	Mobile Repeater	Channel 303-304	7MOB72D	mandatory
16	Pair 319-320/1279-1280	7TAC73	Other Public Service	Channel 319-320	7TAC73D	mandatory

Channels labeled as mandatory include both the mobile transmit and mobile receive (a total of 16 channels) for subscriber units only

Part 2, Appendix A

700 MHz Interoperability Channels, Labels, and Usage (continued)

	12.5 kHz CHANNEL PAIR	CHANNEL LABEL	RADIO SERVICE	TALK-AROUND	CHANNEL LABEL	USE/MISC NOTES
17	Pair 641-642/1601-1602	7EMS76	EMS	Channel 641-642	7EMS76D	
18	Pair 657-658/1617-1618	7TAC74	General Public Safety Service (secondary trunked)	Channel 657-658	7TAC74D	
19	Pair 681-682/1641-1642	7CAL75	Calling Channel	Channel 681-682	7CAL75D	mandatory
20	Pair 697-698/1657-1658	7EMS77	EMS	Channel 697-698	7EMS77D	
21	Pair 721-722/1681-1682	7FIRE80	Fire	Channel 721-722	7FIRE80D	
22	Pair 737-738/1697-1698	7TAC78	General Public Safety Service (secondary trunked)	Channel 737-738	7TAC78D	
23	Pair 761-762/1721-1722	7TAC79	General Public Safety Service	Channel 761-762	7TAC79D	mandatory
24	Pair 777-778/1737-1738	7FIRE81	Fire	Channel 777-778	7FIRE81D	
25	Pair 801-802/1761-1762	7LAW84	Police	Channel 801-802	7LAW84D	
26	Pair 817-818/1777-1778	7TAC82	General Public Safety Service (secondary trunked)	Channel 817-818	7TAC82D	
27	Pair 841-842/1801-1802	7TAC83	General Public Safety Service	Channel 841-842	7TAC83D	
28	Pair 857-858/1817-1818	7LAW85	Police	Channel 857-858	7LAW85D	
29	Pair 881-882/1841-1842	7MOB88	Mobile Repeater	Channel 881-882	7MOB88D	mandatory
30	Pair 897-898/1857-1858	7TAC86	General Public Safety Service (secondary trunked)	Channel 897-898	7TAC86D	
31	Pair 921-922/1881-1882	7DAT87	Mobile Data	Channel 921-922	7DAT87D	
32	Pair 937-938/1897-1898	7TAC89	Other Public Service	Channel 937-938	7TAC89D	mandatory

Channels labeled as mandatory include both the mobile transmit and mobile receive (a total of 16 channels) for subscriber units only

Part 2, Appendix A

700 MHz Interoperability Channels – Frequency List

	12.5 kHz CHANNEL PAIR	CHANNEL LABEL (proposed)	FREQUENCY (lower edge) (base)	(mobile)	FREQUENCY (center) (base)	(mobile)
01	Pair 23-24/983-984	7TAC58	764.13750	794.13750	764.14375	794.14375
02	Pair 39 -40/999-1000	7CAL59	764.23750	794.23750	764.24375	794.24375
03	Pair 63-64/1023-1024	7EMS60	764.38750	794.38750	764.39375	794.39375
04	Pair 79-80/1039-1040	7EMS61	764.48750	794.48750	764.49375	794.49375
05	Pair 103-104/1063-1064	7TAC62	764.63750	794.63750	764.64375	794.64375
06	Pair 119-120/1079-1080	7TAC63	764.73750	794.73750	764.74375	794.74375
07	Pair 143-144/1103-1104	7FIRE64	764.88750	794.88750	764.89375	794.89375
08	Pair 159-160/1119-1120	7FIRE65	764.98750	794.98750	764.99375	794.99375
09	Pair 183-184/1143-1144	7TAC66	765.13750	795.13750	765.14375	795.14375
10	Pair 199-200/1159-1160	7TAC67	765.23750	795.23750	765.24375	795.24375
11	Pair 223-224/1183-1184	7LAW68	765.38750	795.38750	765.39375	795.39375
12	Pair 239-240/1199-1200	7LAW69	765.48750	795.48750	765.49375	795.49375
13	Pair 263-264/1223-1224	7TAC70	765.63750	795.63750	765.64375	795.64375
14	Pair 279-280/1239-1240	7DAT71	765.73750	795.73750	765.74375	795.74375
15	Pair 303-304/1263-1264	7MOB72	765.88750	795.88750	765.89375	795.89375
16	Pair 319-320/1279-1280	7TAC73	765.98750	795.98750	765.99375	795.99375

700 MHz Interoperability Channels – Frequency List (continued)

	12.5 kHz CHANNEL PAIR	CHANNEL LABEL (proposed)	FREQUENCY (lower edge) (base)	(mobile)	FREQUENCY (center) (base)	(mobile)
17	Pair 641-642/1601-1602	7EMS76	768.00000	798.00000	768.00625	798.00625
18	Pair 657-658/1617-1618	7TAC74	768.10000	798.10000	768.10625	798.10625
19	Pair 681-682/1641-1642	7CAL75	768.25000	798.25000	768.25625	798.25625
20	Pair 697-698/1657-1658	7EMS77	768.35000	798.35000	768.35625	798.35625
21	Pair 721-722/1681-1682	7FIRE80	768.50000	798.50000	768.50625	798.50625
22	Pair 737-738/1697-1698	7TAC78	768.60000	798.60000	768.60625	798.60625
23	Pair 761-762/1721-1722	7TAC79	768.75000	798.75000	768.75625	798.75625
24	Pair 777-778/1737-1738	7FIRE81	768.85000	798.85000	768.85625	798.85625
25	Pair 801-802/1761-1762	7LAW84	769.00000	799.00000	769.00625	799.00625
26	Pair 817-818/1777-1778	7TAC82	769.10000	799.10000	769.10625	799.10625
27	Pair 841-842/1801-1802	7TAC83	769.25000	799.25000	769.25625	799.25625
28	Pair 857-858/1817-1818	7LAW85	769.35000	799.35000	769.35625	799.35625
29	Pair 881-882/1841-1842	7MOB88	769.50000	799.50000	769.50625	799.50625
30	Pair 897-898/1857-1858	7TAC86	769.60000	799.60000	769.60625	799.60625
31	Pair 921-922/1881-1882	7DAT87	769.75000	799.75000	769.75625	799.75625
32	Pair 937-938/1897-1898	7TAC89	769.85000	799.85000	769.85625	799.85625

Part 2, Appendix A

700 MHz Interoperability Channels – Talk-around (Simplex/Direct) Frequency List

	TALK-AROUND	CHANNEL LABEL (proposed)	FREQUENCY (lower edge) (base)	FREQUENCY (center) (base)
01	Channel 23-24	7TAC58D	764.13750	764.14375
02	Channel 39 -40	7CAL59D	764.23750	764.24375
03	Channel 63-64	7EMS60D	764.38750	764.39375
04	Channel 79-80	7EMS61D	764.48750	764.49375
05	Channel 103-104	7TAC62D	764.63750	764.64375
06	Channel 119-120	7TAC63D	764.73750	764.74375
07	Channel 143-144	7FIRE64D	764.88750	764.89375
08	Channel 159-160	7FIRE65D	764.98750	764.99375
09	Channel 183-184	7TAC66D	765.13750	765.14375
10	Channel 199-200	7TAC67D	765.23750	765.24375
11	Channel 223-224	7LAW68D	765.38750	765.39375
12	Channel 239-240	7LAW69D	765.48750	765.49375
13	Channel 263-264	7TAC70D	765.63750	765.64375
14	Channel 279-280	7DAT71D	765.73750	765.74375
15	Channel 303-304	7MOB72D	765.88750	765.89375
16	Channel 319-320	7TAC73D	765.98750	765.99375

Part 2, Appendix A

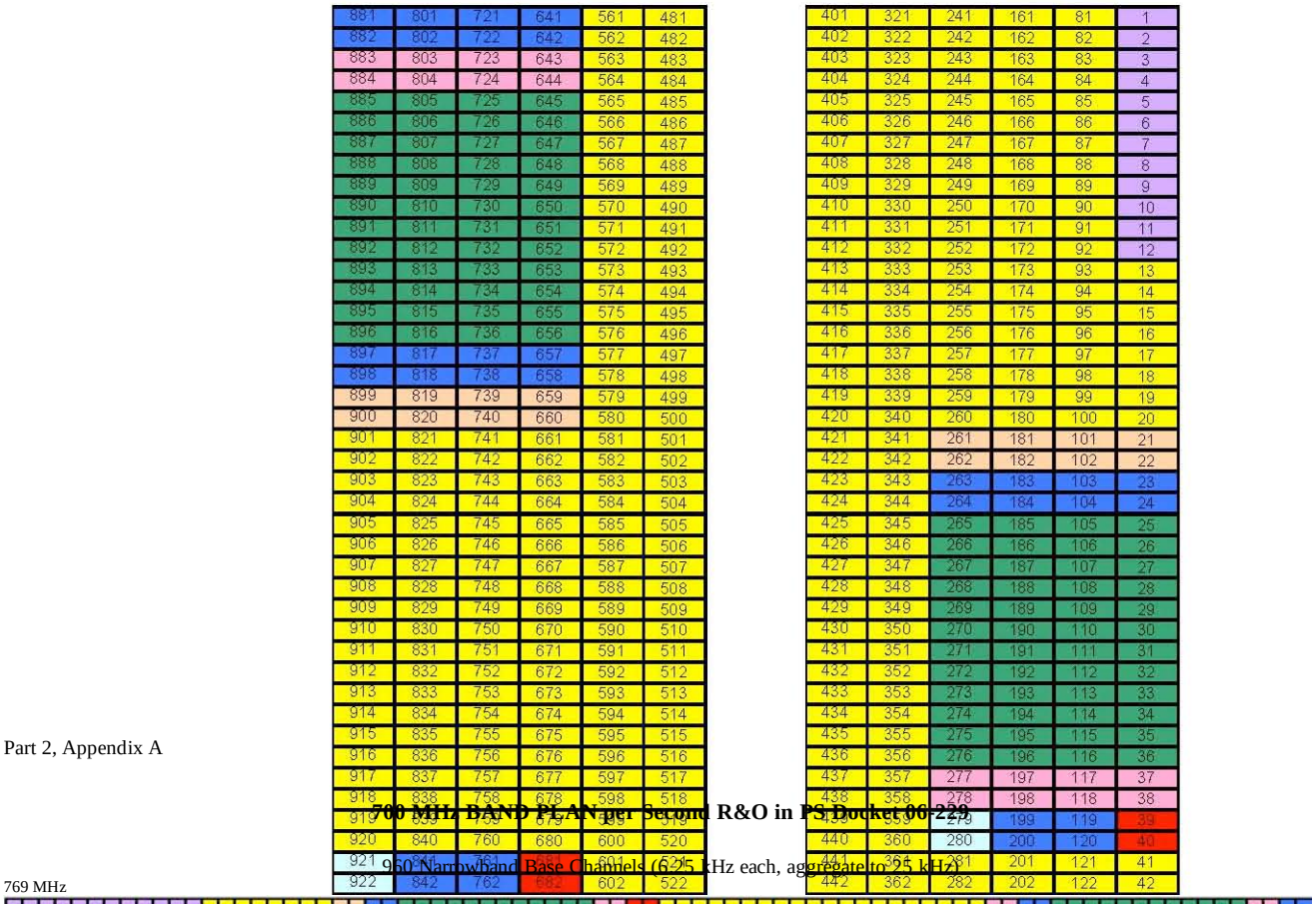
700 MHz Interoperability Channels – Talk-around (Simplex/Direct) Frequency List (continued)

	TALK-AROUND	CHANNEL LABEL (proposed)	FREQUENCY (lower edge) (base)	FREQUENCY (center) (base)
17	Channel 641-642	7EMS76D	768.00000	768.00625
18	Channel 657-658	7TAC74D	768.10000	768.10625
19	Channel 681-682	7CAL75D	768.25000	768.25625
20	Channel 697-698	7EMS77D	768.35000	768.35625
21	Channel 721-722	7FIRE80D	768.50000	768.50625
22	Channel 737-738	7TAC78D	768.60000	768.60625
23	Channel 761-762	7TAC79D	768.75000	768.75625
24	Channel 777-778	7FIRE81D	768.85000	768.85625
25	Channel 801-802	7LAW84D	769.00000	769.00625
26	Channel 817-818	7TAC82D	769.10000	769.10625
27	Channel 841-842	7TAC83D	769.25000	769.25625
28	Channel 857-858	7LAW85D	769.35000	769.35625
29	Channel 881-882	7MOB88D	769.50000	769.50625
30	Channel 897-898	7TAC86D	769.60000	769.60625
31	Channel 921-922	7DAT87D	769.75000	769.75625
32	Channel 937-938	7TAC89D	769.85000	769.85625

Part 2, Appendix A

700 MHz BAND PLAN per Second R&O in PS Docket 06-229

960 Narrowband Base Channels (6.25 kHz each, aggregate to 25 kHz)



Narrowband Channels

- Two may be combined provided that the lower channel number is odd (*e.g.*, 1, 3, 5)
- Four may be combined provide that the lower channel number is 1 + 4n, n = 0 to 479 (*e.g.*, 1, 5, 1917)
- Channel numbers for combined channels are designated by the lowest and highest channel numbers separated by a hyphen: *e.g.*, "1-2" and "1-4".
- Narrowband channels must maintain a data throughput efficiency of not less than 4.8 kbps for each 6.25 kHz of bandwidth

General Use
Interoperability
Reserve
State License
Low Power
2ndary Trunking
I/O Nationwide Call
I/O Low Speed Data